

## Claims

### What is claimed is:

1. A message router for routing data repository messages between a plurality of computer systems, wherein said computer systems include data repositories having disparate syntaxes, said message router comprising:
  - 1 a conversion engine which has been configured to translate content in a received data repository message from a syntax corresponding to a data repository of an originating computer system to a syntax corresponding to a data repository of at least one target computer system.
2. The message router of claim 1, further comprising:
  - 1 a communications processor configured to format said received data repository message according to a suitable communications protocol.
3. The message router of claim 1, said conversion engine further comprising:
  - 1 a translation library configured to store information relating to said disparate syntaxes of said data repositories.
4. The message router of claim 3, wherein particular ones of said computer systems include distributed database networks.
5. The message router of claim 3, wherein said conversion engine further comprises a reference processor configured to translate data structure and attribute name references within said data repository messages.
6. The message router of claim 5, wherein said conversion engine further comprises an attribute processor configured to translate attribute values within said data repository messages.

1       7.     The message router of claim 6, wherein said conversion engine further  
2     comprises an operation processor configured to translate data repository operations  
3     within said data repository messages.

1       8.     In a message router, a method of routing data repository messages, said method  
2     comprising:

3              receiving a data repository message from an originating computer system, said  
4     data repository message conforming to a first syntax;

5              determining a target computer system to which said received data repository  
6     message is directed;

7              based on said determined target computer system, identifying a second syntax  
8     corresponding to said target computer system, wherein said first syntax and said  
9     second syntax are disparate;

10             converting content in said received data repository message from said first  
11     syntax to said second syntax; and

12             sending said received and converted data repository message to said target  
13     computer system.

1       9.     The method of claim 8, said converting step further comprising:

2              using a translation library having syntax information corresponding to said first  
3     and second syntax.

1       10.    The method of claim 9, wherein said data repository message includes at least  
2     one of a data structure reference, an attribute name reference, an attribute value, and a  
3     data repository operation, said converting step further comprising:

4              translating said data structure and said attribute name references using a  
5     reference processor;

6              translating said attribute value using an attribute processor; and

7 translating said data repository operation using an operation processor.

1 11. In a message router, a method of routing data repository messages, said method  
2 comprising:

3 receiving a data repository message from an originating computer system, said  
4 data repository message conforming to a first syntax;

5 determining a plurality of target computer systems to which said received data  
6 repository message is directed;

7 based on said determined plurality of target computer systems, identifying at  
8 least one syntax for particular ones of said plurality of target computer systems, wherein  
9 said at least one identified syntax and said first syntax are disparate;

10 converting content in said received data repository message from said first  
11 syntax to said at least one syntax of said particular ones of said plurality of target  
12 computer systems; and

13 sending said received and converted data repository message to said particular  
14 ones of said plurality of target computer systems.

1 12. The method of claim 11, said converting step further comprising:

2 using a translation library having syntax information corresponding to said first  
3 syntax and said identified at least one syntax.

1 13. The method of claim 12, wherein said data repository message includes at least  
2 one of a data structure reference, an attribute name reference, an attribute value, and a  
3 data repository operation, said converting step further comprising:

4 translating said data structure and said attribute name references using a  
5 reference processor;

6 translating said attribute value using an attribute processor; and

7 translating said data repository operation using an operation processor.

1       14. A machine-readable storage, having stored thereon a computer program having  
2           a plurality of code sections executable by a machine for causing the machine to  
3           perform the steps of:

4              in a message router, receiving a data repository message from an originating  
5           computer system, said data repository message conforming to a first syntax;  
6              determining a target computer system to which said received data repository  
7           message is directed;

8              based on said determined target computer system, identifying a second syntax  
9           corresponding to said target computer system, wherein said first syntax and said  
10          second syntax are disparate;

11              converting content in said received data repository message from said first  
12          syntax to said second syntax; and

13              sending said received and converted data repository message to said target  
14          computer system.

1       15. The machine-readable storage of claim 14, said converting step further  
2           comprising:

3              using a translation library having syntax information corresponding to said first  
4           and second syntax.

1       16. The machine-readable storage of claim 15, wherein said data repository  
2           message includes at least one of a data structure reference, an attribute name  
3           reference, an attribute value, and a data repository operation, said converting step  
4           further comprising:

5              translating said data structure and said attribute name references using a  
6           reference processor;

7              translating said attribute value using an attribute processor; and

8              translating said data repository operation using an operation processor.

1       17. A machine-readable storage, having stored thereon a computer program having  
2       a plurality of code sections executable by a machine for causing the machine to  
3       perform the steps of:

4                 in a message router, receiving a data repository message from an originating  
5       computer system, said data repository message conforming to a first syntax;

6                 determining a plurality of target computer systems to which said received data  
7       repository message is directed;

8                 based on said determined plurality of target computer systems, identifying at  
9       least one syntax for particular ones of said plurality of target computer systems, wherein  
10      said at least one identified syntax and said first syntax are disparate;

11                 converting content in said received data repository message from said first  
12       syntax to said at least one syntax of said particular ones of said plurality of target  
13       computer systems; and

14                 sending said received and converted data repository message to said particular  
15       ones of said plurality of target computer systems.

1       18. The machine-readable storage of claim 17, said converting step further  
2       comprising:

3                 using a translation library having syntax information corresponding to said first  
4       syntax and said identified at least one syntax.

1       19. The machine-readable storage of claim 18, wherein said data repository  
2       message includes at least one of a data structure reference, an attribute name  
3       reference, an attribute value, and a data repository operation, said converting step  
4       further comprising:

5                 translating said data structure and said attribute name references using a  
6       reference processor;

7                 translating said attribute value using an attribute processor; and

8                 translating said data repository operation using an operation processor.